

VIRTUAL MACHINE MEMORY MANAGEMENT**ABSTRACT**

5 This invention relates to memory management in a
virtual machine or operating system and in particular to
object creation and garbage collection. There is
described a method and system of managing memory in a
multi-threaded processing environment such as a java
10 virtual machine comprising: creating an object in a
thread heap; associating a status with the object and
setting the status as local; using write barriers to
change the status to global if the object is assigned to
a static variable or if the object is assigned to a field
15 in a global object; changing the status of all objects
referenced by that object to global; and performing
garbage collection by deleting from the thread heap, when
memory space in the thread heap is required, one or more
local objects which can not be traced to the thread
20 stack.